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DETAILED DESCRIPTION OF THE INVENTION AND PREFERRED EMBODIMENT

The significance and reasons for the limitations of the alloying components in the aluminum alloy piping material for automotive tubes having excellent corrosion resistance and formability according to the present invention are described below. Mn functions to increase the strength and improve the corrosion resistance, in particular, pitting corrosion resistance, of the aluminum alloy. The preferred range for the Mn content is 0.3 to 1.5%. If the Mn content is less than 0.3%, the improvement effect will become insufficient. If the Mn content exceeds 1.5%, the corrosion resistance is reduced due to the formation of a multitude of Mn-based compound grains. The more preferred range for the Mn content is 0.8% or more and less than 1.2%.

Cu functions to improve the strength of the alloy. The preferred Cu content is in the range of 0.20% or less (excluding 0%). If the Cu content exceeds 0.20%, the corrosion resistance is reduced. The more preferred range for the Cu content is 0.05 to 0.10%.

Ti exists in two types of regions, i.e., one that contains a high concentration of Ti and the other with a lower Ti concentration, which are distributed as alternate layers in the thickness-wise direction. Since the region with a lower Ti concentration corrodes in preference to the region with a higher Ti concentration, the resultant corrosion takes a stratified form where the development of corrosion in the thickness-wise direction is hindered, thereby contributing to an improvement in pitting corrosion resistance, intergranular corrosion resistance, and crevice corrosion resistance. The preferred Ti content is in the range of 0.10 to 0.20%. If the Ti content is less than 0.10%, the improvement